

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:	§	Attorney Docket No.:
Chao-Cheng Chen, et al.	§	2002-0210 / 24061.475
	§	
Serial No.: 10/714,304	§	Customer No. 42717
	§	
Filed: November 14, 2003	§	Group Art Unit: 2823
	§	
For: Dual Damascene Process Flow for	§	Examiner: Michelle Estrada
Porous Low-K Materials	§	
	§	Confirmation No.: 2110
	§	
	§	

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Commissioner for Patents
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REPLY BRIEF

A Notice of Appeal was previously filed on January 23, 2006, and then an Appeal Brief was filed on March 23, 2006. The Examiner subsequently issued an Examiner's Answer on May 24, 2007. This Reply Brief is now being filed pursuant to the provisions of 37 C.F.R. §41.41. A separate transmittal letter containing an appropriate certificate of mailing serves to transmit this Reply Brief.

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STATUS OF CLAIMS

Claims 1, 4-8, and 10-14 are pending, have been finally rejected, and are on appeal here. Claims 2, 3, 9, and 15-50 have been allowed. Claims 1-50 are set forth in the Claims Appendix of Applicants' previously-filed Appeal Brief, and have not changed since filing of the Appeal Brief.

GROUND OF REJECTION TO BE REVIEWED ON APPEAL

Whether claims 1, 4-8, and 10-14 are unpatentable under 35 U.S.C. §103(a) over U.S. Patent Application No. 2004/0166669 to Saito ("Saito") in view of U.S. Patent Application No. 2003/0054629 to Kawai et al. ("Kawai").

ARGUMENT

The arguments that follow are supplementary to the arguments previously set forth in Applicants' Appeal Brief.

In the Examiner's Answer, Section (9) on pages 3-6 is a verbatim reproduction of text that previously appeared on pages 2-6 of the final rejection mailed August 23, 2005. Since this material has already been addressed in detail in the Arguments section of the Applicants' Appeal Brief, no further comment is believed to be necessary here about Section (9) of the Examiner's Answer.

Section (10) of the Examiner's Answer is a response to the arguments presented in Applicants' Appeal Brief. Throughout Section (10) the Examiner is arguing that "layer 4" of Saito is a protective film. The Appellants continue to respectfully disagree. The reference number 4 is described by Saito as a conductive polymeric *member 4* (emphasis added). The member 4 is formed only in the via hole 3. As such, the member 4 is not a protective film.

The Examiner argues that member 4 of Saito can be "interpreted as a protective film because prevents a Cu interconnection from being damaged by trench formation etching." This statement of potential advantageous qualities of the member 4, does not disclose the member 4 as protective *film* as asserted by the Examiner. The Examiner continues to argue that member 4 is a "protective film" because such a description is "merely labelling" (sic). The Appellants submit that the term "film" is not merely labeling. A "protective film" provides descriptive limitations to the claimed feature.

The Appellants agree with the Examiner that the method of formation of the protective film are not required by the claim. The Appellants continue to submit however, that the description of the protective film as found in the specification, including the formation method, is pertinent to the *interpretation* of the claim term. The Appellants statement of the fabrication

method of the protective film in the Appeal Brief dated March 23, 2006 was, contrary to the Examiner's apparent understanding, not to read limitations from the specification into the claims.

The description of the fabrication of the protective film was included as associated with the interpretation of the claim term in that it is helpful in illustrating the broadest reasonable interpretation of the claim term as required by MPEP §2111. In making such a reasonable interpretation of the claims, claim terms must be consistent with the specification. The fabrication method noted in the specification illustrates the claim term "film" should be interpreted in the conventional sense of the term "film." Thus, the Appellants respectfully submit that a via fill, such as member 4 of Saito, is entirely inconsistent with the subject specification's description of the protective film.

The Examiner argues that the definition of film as described by Merriam Webster including a "thin membranous covering or a thin covering or coating" encompasses the polymeric member 4 of Saito as member 4 could be a "thin coating." The Appellants respectfully disagree. One skilled in art would not recognize a via fill, such as member 4 of Saito, as a thin coating. Furthermore, the Examiner's statement that the term "thin" is a "relative term, which renders the claim indefinite" as the term "is not defined by the claim, (and) the specification does not provide a standard of ascertaining" the term is misplaced. The term "thin" is not present in the claim, but discussed by way of interpretation of the claim term "film." Furthermore, one skilled in the art would readily appreciate the term "thin" as applied to the description of a thin coating. The Appellants also note the following passage of the subject application in association with the protective film:

...Protective film portions 22,24 ...Organic CVD protective film
portion 24 is formed to a thickness of preferably from about 50 to
2000Å and more preferably 200 to 1500Å.

After careful consideration of the Examiner's Answer, Applicants still believe that the arguments presented in Applicants' Appeal Brief are accurate, and very clearly demonstrate why the rejections of the pending claims are defective.

IX. CONCLUSION

For reasons discussed above, it is respectfully submitted that the rejections of pending Claims 1, 4-8, and 10-14 are erroneous. Accordingly, it is respectfully requested that the Board reverse the claim rejections.

Respectfully submitted,



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Enclosures: None

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